# UNITED STATES PATENT AND TRADEMARK OFFICE

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|---|---|---|---|
| 09/282,145 | 03/31/1999 | GERD SCHOENWOLF | P98.2881 | 8232 |

26574    7590    03/18/2002

SCHIFF HARDIN & WAITE
6600 SEARS TOWER
233 S WACKER DR
CHICAGO, IL  60606-6473

| EXAMINER |
|---|
| CORRIELUS, JEAN M |

| ART UNIT | PAPER NUMBER |
|---|---|
| 2172 | |

DATE MAILED: 03/18/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 07-01)

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE ___3___ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1) ☒ Responsive to communication(s) filed on *Mar 4, 2002*

2a) ☒ This action is **FINAL**.     2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

**Disposition of Claims**

4) ☒ Claim(s) *1-13 and 16* is/are pending in the applica

    4a) Of the above, claim(s) _____ is/are withdrawn from considera

5) ☒ Claim(s) *3* is/are allowed.

6) ☒ Claim(s) *1, 2, 4-13, and 16* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claims _____ are subject to restriction and/or election requirem

**Application Papers**

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

11) ☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐disapproved.

12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. § 119**

13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

    a)☐ All  b) ☐ Some*  c) ☐None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____ .

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    *See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

**Attachment(s)**

15) ☐ Notice of References Cited (PTO-892)

16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____

18) ☐ Interview Summary (PTO-413) Paper No(s). _____

19) ☐ Notice of Informal Patent Application (PTO-152)

20) ☐ Other: _____

## DETAILED ACTION

1.    This office action is in response to the amendment filed on 03/04/02 (paper no.9) in which claims 1 and 3-4 were amended.

### *Response to Arguments*

2.    Applicant's arguments filed 03/04/02 have been fully considered but they are not persuasive. (See examiner's remark section).

### *Information Disclosure Statement*

3.    The information disclosure statement filed on June 14, 1999 and February 28, 20○○ (paper no.3&4 respectively) complies with the provisions of M.E.P.. § 609.  It has been placed in the application file. The information referred to therein has been considered as to the merits.

### *Priority*

4.    Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). The certified copy has been filed in parent Application No. 19819205.3, filed on 04/29/1998, which papers have been placed of record in the file.

### *Claim Rejections - 35 U.S.C. § 103*

5.     The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

6.     Claims 1-2, 4-13 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson et al US Patent no.6,301,582.

As to claim 1, Johnson discloses "a database for storing persistent data" as a two level storage system persistent data (col.2, lines 17-18); "a buffer into which is written all data to be permanently stored"(as a shared persistent virtual storage (item 190) which includes a virtual storage manager (item 208); virtual address translator (item 210), wherein said virtual address (201) comprises a hasher, hash table and a lookaside buffers; page cache (item 212); and pager (item 214) (see fig.2); "a permanent memory connected to the buffer, the permanent memory having at least two storage

areas in each of which all permanent data from the buffer is stored" as a data storage (206) connected

to the shared persistent virtual storage (item 190) having at least two storage area ((Backing store)1

and (Backing store)2) into which the persistent data is alternately written (see fig.2), each storage

(Backing store) unit being structured to store a complete permanent configuration for a characteristic

(hasher, page cache, pager). The lookaside buffer disclosed by Johnson does not directly connected

to the permanent memory (data storage item 206 of fig.6). However, such a data storage is connected

to the share persistent virtual storage (item 190 of fig.2), which contains a lookaside buffer. Such

lookaside buffer is connected to the data storage through the use of the shared persistent virtual

storage. Therefore, it would have been obvious to one having ordinary skill in the art at the time the

invention was made to modify Johnson' system, wherein the lookaside buffer provided therein (see

Johnson's fig.2) would directly connected to the data storage. One having ordinary skill in the art

would have been motivated to directly connect the data storage into the lookaside buffer in order to

facilitate faster access.

As to claim 2, Johnson discloses the claimed "wherein the data base further comprises a

control mechanism within a first application process for management of a first memory controls

writing of the data to be persistently stored into the buffer, the data being generated or modified by

the first application process alone or also by other application, processes running simultaneously with

the first application" (col.7, lines 10-32).

As to claims 4-7, Johnson substantially discloses the invention as claimed, including the recited "wherein all of the persistent data stored in the buffer is alternately written into one of the storage units or storage areas of the permanent memory" (col.2, lines 18-24).

As to claim 8, Johnson discloses the claimed "wherein only the persistent data, if necessary including reconstruction data, is transferred into the buffer from a first memory which contains a run-time program and associated permanent data" (col.2, lines 30-33).

As to claim 9, Johnson discloses the claimed "wherein the persistent data is stored in a space-saving manner as a data sequence in the buffer and in the permanent memory" (col.5, lines 1-4).

As to claims 10-12, Johnson substantially discloses the invention as claimed including the recited "permanent memory is provided for a start program and application software including database management software, with use of which configuration data to be written into the first memory is automatically reconstructed from the persistent data stored in the permanent memory" (col.6, lines 19-27).

As to claim 13, Johnson does not explicitly disclose a loadable Flash Erasable Programmable Read Only Memory chip. It would have been obvious to one having ordinary skill in the art at the time the invention was made to implement Johnson' system, including a loadable Flash Erasable

Programmable Read Only Memory chip. This motivation would have been to allow Johnson's permanent memory to stay stable for long periods without electricity while still allowing reprogramming.

As to claim 16, Johnson discloses the claimed "wherein a number of configuration changes are only performed at a data management side and thereafter at least one of a functional and a hardware change comprising all configuration changes is performed in the terminal" as a means wherein Java compiler compiles programs written in Java which is platform independent commands that can be interpreted and run by JVM, which must be implemented for each platform on which the Java program must be run (col.7, lines 65-col.8, line 6).

## *Allowable Subject Matter*

7.      Claim 3 is allowable over the prior art made of record.

### *Remark*

(A).    Applicants asserted that Johnson does not disclose a permanent memory having at least two storage units, but rather teaches a memory using a file manager and a virtual memory system, the latter being a temporary memory. The examiner kindly submits that the applicants misread the applied reference used in the rejection. However, when read and analyzed in light of the specification, the invention as claimed does not support applicant's assertions. Actually, applicants interpreted the claims very narrow without considering the broad teaching of the reference stated in the rejection.

Applicants should duly note that Johnson discloses an analogous system for use to facilitate the

creation, storage and interaction of persistent objects. Johnson, in particular, discloses the use of a

data storage, wherein said data storage contains two storage units ((backing store)1 and (backing

store)2, see Johnson's fig.2) where all the data from the lookaside buffer is stored. The examiner

has provided in the office action a convincing line of reasoning as to where in the cited reference the

asserted limitation is meet. The evidence (page 4, lines 7-25) provided by the applicants is not

convincing to invalid the two storage unit shown by Johnson (See Johnson's fig.2, item 206).

Therefore, Applicants' assertions are just mere allegation with no supported fact.


(B).    Applicants asserted that Johnson does not teach a permanent memory having at least two

storage units into which persistent configuration data is alternately written, but rather teaches a

memory moving data into a temporary "memory buffer", and only upon demand of a requesting

process. The examiner kindly submits that the applicants misread the applied reference used in the

rejection. However, when read and analyzed in light of the specification, the invention as claimed

does not support applicant's assertions. Actually, applicants' claimed feature clearly state "a buffer

into which is written persistent data to be permanently stored". The persistent data in the instant

implication is first stored in a temporary "memory buffer" prior being moved to the memory unit. This

aforementioned assertion is invalided because the memory buffer of Johnson as well as the instance

application is temporary memory into which written persistent data to be permanently stored.

Applicants should duly note that Johnson discloses an analogous system for use to facilitate the

creation, storage and interaction of persistent objects. Johnson, in particular, discloses the use of a

data storage, wherein said data storage contains two storage units ((backing store)1 and (backing

store)2, see Johnson's fig.2) where all the data from the lookaside buffer is stored. The examiner

has provided in the office action a convincing line of reasoning as to where in the cited reference the

asserted limitation is meet. The evidence (page 4, lines 7-25) provided by the applicants is not

convincing to invalid the two storage unit shown by Johnson (See Johnson's fig.2, item 206).

Therefore, Applicants' assertions are just mere allegation with no supported fact.

(C). Applicant asserted that the data of Johnson is not alternately written between two storage units.

The examiner kindly submits that the applicants misread the applied reference used in the rejection.

However, when read and analyzed in light of the specification, the invention as claimed does not

support applicant's assertions. The data storage disclosed by Johnson having two memory units

capable of alternately written persistent data as one of them become full. Therefore, the

aforementioned assertion is moot.

### *Conclusion*

8.　　THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or early communication from the Examiner should directed to Jean M. Corrielus whose telephone number is (703)306-3035. The Examiner can normally be reached on Tuesday-Friday from 7:00am to 5:30pm.

If attempts to reach the Examiner by telephone are unsuccessful, the examiner's supervisor, Kim Vu, can be reached on Monday-Friday from 9:00 a.m.-6:00 p.m. at (703)305-4393.

Any response to this action should be mailed to: Commissioner of Patents and Trademarks Washington, D.C. 20231

or faxed to: (703) 746-7239, (for formal communications intended for entry)

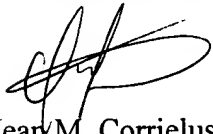Or: (703)3746-7240 (for informal or draft communications, please label "PROPOSED" or

Art Unit: 2172:


"DRAFT") Hand-delivered responses should be brought to Crystal Park II, 2021 Crystal Drive,

Arlington. VA., Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application should be directed

to the group receptionist whose telephone number is (703) 305-9600.

Jean M. Corrielus

Patent Examiner

March 15, 2002